1.0 Background

FEMA's mission encompasses the centralized direction of emergency management in both peacetime and war and for emergencies ranging from natural disasters to nuclear war. FEMA carries out its responsibilities through a field organization of ten Regional Offices, five Federal Regional Centers, Joint Field Offices, Long Term Recovery Offices, the Mt. Weather Emergency Operations Center (MWEOC), the National Emergency Training Center (NETC), Washington DC, the Olney Federal Support Center and fixed disaster processing sites.

It is the government's desire to have a single solution providing telephone and secure encrypted Internet service with TCP acceleration with all portable satellite systems. The current network ground entry point is PanAmSat's Atlanta teleport, located in Ellenwood, GA and is connected via a private link to FEMA Region IV headquarters, located in Atlanta, GA.

FEMA Region IX Office covers the Pacific Islands and during natural disasters communications links to the continental US are either non-existent or extremely limited. Back up satellite communications is the main link for all first responders and regional staff on the ground to communicate critical needs back to key decision makers at the Regional Office and FEMA HQ.

2.0 General

2.1 General Requirements

A. Provide Ku satellite communications link into the FEMA infrastructure for twenty four voice and twenty four data connections.
B. VoIP is acceptable solution between remote satellite system and the Atlanta, GA Regional Office.
C. Voice instruments supplied as part of the contract are recommended to be analog slim line instruments.
D. TCP acceleration is required for VoIP link.
E. TCP encryption required at AES or 3DES.
F. The satellite system must be small, light weight and portable, to be transported in Suburban or van type vehicle.
G. System should not exceed 150 pounds per case.
H. Multiple transit cases are acceptable.
I. Satellite system set up time must be less than 1 hours from time of arrival on site, to being fully operational with both voice and data.
J. The ground entry point to FEMA is currently Atlanta, Georgia in the Region IV Office.
K. Current Earth Station is PanAmSat Ellenwood facility.
L. Current contracted satellite space is on Horizon 1 and all horizontal polarization.
M. Systems must fully auto acquire a preprogrammed satellite.
N. Systems must be shock mounted for transport.
O. System will operate on dedicated satellite space only.

P. All units must be capable of operating with a minimum of 99.5% uptime for voice, data, and fax for extended periods.
Q. System will include sufficient UPS power to hold system for at least ten minutes and provide input line filtering.

2.2 Estimated Period of Performance

The period of performance shall begin upon the contractor's receipt of the purchase order or contract award notification. Systems delivery is anticipated to be no later than sixty days from award. Respondents are required to submit proposed delivery schedule with proposal.

3.0 Government Deliverables

A. Systems enter FEMA at the Atlanta Regional office on a dedicated circuit provided by the government.
B. Modems and network electronics at the earth station end will be solely used by FEMA and will be government property that is housed at the earth station with no reoccurring costs.
C. Proposed system can be compatible with the current UDGateway 50 tunnel units currently installed in the Atlanta, GA Regional Office, for data and voice into the FEMA infrastructure.
D. Proposed system must be compatible with the current ISDN PRI circuits in the Atlanta regional office for voice traffic.
E. Government will provide DID numbers to be used with voice.
F. Government will provide voice circuits from the Atlanta regional office to the local Bell South CO.
G. Government will provide the IP addresses for entry into the FEMA infrastructure after data signal hits UDGateway 50 tunnel units or FEMA owned firewall.

4.0 Contractor Deliverables

4.1 Antenna System and Certifications

A. The antenna system provided by the contractor is preferred to be in the .96 to1.2 meter range and will require certification to be used on the PanAmSat Horizon 1 satellite.
B. Antenna certification will be provided as part of contractor's response.
C. Antenna system must be fully auto acquire to preprogrammed satellite.
D. BUC and LNB integration to the antenna structure is acceptable.
E. BUC for 1.2 meter antenna system must be four watts or greater.
F. BUC for antenna systems smaller that 1.2 meter will have eight watt BUC or greater.
G. Antenna systems must be able to with stand a minimum of thirty (30) mile per hour winds staying operationally deployed and fifty (50) mile per hour winds when stowed.

H. Contractor will be responsible for all baseband system installation/integration/testing and documentation.
I. Antenna system must be remote capable a minimum of one hundred (100) feet from the electronic cases housing the voice and data indoor solution.

4.2 Installation and Integration of Contractor Solution

A. Contractor will provide a single solution for all systems covered under this order.
B. Contractor will provide, as part of response to the RFQ, the proposed system in a drawing format and narrative description of the system's proposed connectivity from the remote voice and data, to connection into the FEMA infrastructure.
C. Contractor will provide, install and integrate modems for both ends of the proposed solution, as required.
D. Contractor will be responsible for all installation, programming and software loads required on the voice solution equipment installed in the Region IV Atlanta office if proposed solution requires.
E. Contractor will be responsible for all programming and software loads required on the UD Gateway equipment installed in the Region IV Atlanta office if proposed solution includes it in proposal.
F. Contractor will be responsible for any data installation, programming and software loads required on data solution that does not use existing government owned equipment and is part of the proposed solution.
G. Satellite data link will use TCP acceleration.
H. Uplink and Downlink bandwidth will be a minimum of 1024 Kbits.
I. Contractor will provide analog slim line phones and line cords to extend a minimum of twenty five (25) feet from the indoor electronic cases.
J. Contractor will provide data cables with RJ45 connections on at least one end to extend a minimum of twenty five (25) feet from the electronic cases and attach to Government supplied laptops with standard NIC cards.
K. Wireless LAN solutions are not acceptable.
L. Each system will have the ability to remote voice and data solution one hundred (100) feet from the antenna system using weather resistant connectors where exposed to outdoor elements.
M. All electronic cases will be configured the same and interchangeable between systems.
N. Where multiple transit cases are required the cases will be marked A through Z for each system.
O. Each system will provide twenty four voice connections and twenty four data connections, all capable of being fully operated at the same time without loss in quality.
P. Each system will contain a UPS system capable of holding the satellite system up for a minimum of ten minutes and provide input filtering.

5.0 Acceptance Testing

Receiving and acceptance.

A. All systems will be inspected for any defects and to ensure compliance with this SOW when delivery is made to contract directed facilities.
B. The contractor, reviewed by the government, will develop test procedures and an official government acceptance test (OGAT) will be preformed on each system at the delivery location per contract.
C. Contractor will provide a detailed test report for each system test conducted.
D. Government Contracting Officer's Technical Representative (COTR) and/or Regional representative will observe the contractor testing of the systems on site and will sign the acceptance report, listing any outstanding issues.
E. All outstanding issues noted during the government acceptance testing will be corrected within ten (10) working days and all failed tests re-run with acceptable results.
F. Government reserves the right to run their own acceptance tests prior to full acceptance of the systems.
G. Contractor shall demonstrate an overall system availability of 99.5% over extended period of time, not less than twelve (12) continuous hours.
H. Contractor will provide a complete setup, breakdown and operation manual with each system at the time of government acceptance testing.
I. Contractor will provide complete configuration and wiring drawings will be provided in hard copy and soft copy for portable satellite system and modem installation in the Ellenwood facility.
J. Contractor will provide complete software configuration of portable satellite system, Ellenwood modems, UDGateway and Quintum in the FEMA regional office, to include software revisions, logins, passwords and detailed configurations.
K. Contractor will provide operation manuals for all electronic equipment provided in the proposed solution, as part of the government acceptance.
L. Antenna certifications, to operate on the current Horizon 1 satellite will be provided by contractor for each antenna system prior to government acceptance testing.